

The EPA Administrator, Lisa P. Jackson, signed the following notice on 5/9/2012, and EPA is submitting it for publication in the *Federal Register* (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's FDSys website (<http://fdsys.gpo.gov/fdsys/search/home.action>) and on Regulations.gov (<http://www.regulations.gov>) in Docket No. EPA-HQ-OAR-2010-1076. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

**6560-50-P**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 51**

**[EPA-HQ-OAR-2010-1076; FRL-9671-3]**

**RIN 2060-AQ97**

**Air Quality: Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The EPA has determined that onboard refueling vapor recovery (ORVR) technology is in widespread use throughout the motor vehicle fleet for purposes of controlling motor vehicle refueling emissions, and, therefore, by this action, the EPA is waiving the requirement for states to implement Stage II gasoline vapor recovery systems at gasoline dispensing facilities in nonattainment areas classified as Serious and above for the ozone national ambient air quality standards (NAAQS). This finding will be effective as noted below in the DATES section. After the effective date of this notice, a state previously required to implement a Stage II program may take appropriate action to remove the program from its State Implementation Plan (SIP). Phasing out the use of Stage II systems may lead to long-term cost savings for gas station owners and operators while air quality protections are maintained.

**DATES:** This rule is effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** The EPA has established a docket for this rule, identified by Docket ID No. EPA-HQ-OAR-2010-1076. All documents in the docket are listed in [www.regulations.gov](http://www.regulations.gov). Although listed in the index, some information is not publicly available, *i.e.*, confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air and Radiation Docket and Information Center, EPA Headquarters Library, Room Number 3334 in the EPA West Building, located at 1301 Constitution Ave., NW, Washington, D.C. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744.

**FOR FURTHER INFORMATION CONTACT:** Mr. Lynn Dail, Office of Air Quality Planning and Standards, Air Quality Policy Division, Mail code C539-01, Research Triangle Park, NC 27711, telephone (919) 541-2363; fax number: 919-541-0824; email address: [dail.lynn@epa.gov](mailto:dail.lynn@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Purpose of Regulatory Action**

Since 1990, Stage II gasoline vapor recovery systems have been a required emissions control measure in Serious, Severe, and Extreme ozone nonattainment areas. Beginning with model year 1998, ORVR equipment has been phased in for new vehicles, and has been a required control on nearly all new highway vehicles since 2006. Over time, non-ORVR vehicles will continue to be replaced with ORVR vehicles. Stage II and ORVR emission control systems are redundant, and the EPA has determined that emission reductions from ORVR are essentially equal to and will soon surpass the emission reductions achieved by Stage II alone. In this action, the EPA is eliminating the largely redundant Stage II requirement in order to ensure that refueling vapor control regulations are beneficial

without being unnecessarily burdensome to American business. This action allows, but does not require, states to discontinue Stage II vapor recovery programs.

## **II. Summary of the Major Provisions of This Final Rule**

Clean Air Act (CAA) section 202(a)(6) provides discretionary authority to the EPA Administrator to, by rule, revise or waive the section 182(b)(3) Stage II requirement for Serious, Severe and Extreme ozone nonattainment areas after the Administrator determines that ORVR is in widespread use throughout the motor vehicle fleet. Based on criteria that the EPA proposed last year (76 FR 41731, July 15, 2011), the EPA is determining that ORVR is in widespread use. As of the effective date of today's action, states that are implementing mandatory Stage II programs under section 182(b)(3) of the CAA may submit revisions to their SIPs to remove this program.

The EPA will also be issuing non-binding guidance on developing and submitting approvable SIP revisions<sup>1</sup>. This guidance will address SIP requirements for states in the Ozone Transport Region (OTR), which are separately required under section 184(b)(2) of the CAA to adopt and implement control measures capable of achieving emissions reductions comparable to those achievable by Stage II. The EPA is updating its guidance for estimating what Stage II comparable emissions reductions could be, in light of the ORVR widespread use determination. The EPA now expects Stage II comparable emissions reductions to be substantially less than what was estimated in the past before ORVR use

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<sup>1</sup> "Phasing Out Stage II Gasoline Refueling Vapor Recovery Programs: Guidance on Satisfying Requirements of Clean Air Act Sections 110(l), 193, and 184(b)(2) (tentative title)." U.S. EPA Office of Air and Radiation, forthcoming. This guidance will provide the EPA's recommendations for states to consider when developing SIP revisions following today's rulemaking. Unlike the final rule, the guidance is not final agency action, and is not binding on or enforceable against any person. Consequently, it is subject to possible revision without additional rulemaking. In addition, the approaches suggested in the guidance (or in any changes thereto) will not represent final agency action unless and until the EPA takes a final SIP approval or disapproval action implementing those approaches.

became widespread. Therefore, the EPA encourages states to consult the updated guidance before submitting a SIP revision removing Stage II controls.

### **III. Costs and Benefits**

The primary purpose of this final rule is to promulgate a determination that ORVR is in widespread use as permitted in section 202(a)(6) of the CAA. In this final rule, EPA is exercising the authority provided by section 202(a)(6) of the CAA to, by rule, revise or waive the section 182(b)(3) Stage II requirement for Serious, Severe, and Extreme ozone nonattainment areas after the Administrator determines that ORVR is in widespread use throughout the motor vehicle fleet. This in turn gives states that were required to implement Stage II vapor recovery under section 182(b)(3) of the CAA the option to submit for the EPA's review and approval revised ozone SIPs that will remove this requirement. The EPA projects that during 2013-2015, gasoline-dispensing facilities (GDFs) in up to 19 states and the District of Columbia could seek to decommission and remove Stage II systems from their dispensers. There are about 30,600 GDFs with Stage II in these 20 areas. If the states submit and EPA approves SIP revisions to remove Stage II systems from these GDFs, the EPA projects savings of about \$10.2 million in the first year, \$40.5 million in the second year, and \$70.9 million in the third year. Long- term savings are projected to be about \$91 million per year, compared to the current use of Stage II systems in these areas. No significant emission increases or decreases are expected from this action.

### **IV. General Information**

#### A. Does this action apply to me?

Entities directly affected by this action include states (typically state air pollution control agencies) and, in some cases, local governments that develop air pollution control rules that apply to areas classified as Serious and above for nonattainment of the ozone NAAQS. Individuals and companies that operate gasoline dispensing facilities may be indirectly affected by virtue of state action

in SIPs that implement provisions resulting from final rulemaking on this action; many of these sources are in the following groups:

Industry group	SIC <sup>a</sup>	NAICS <sup>b</sup>
Gasoline stations	5541	447110, 447190

<sup>a</sup> Standard Industrial Classification.

<sup>b</sup> North American Industry Classification System.

#### B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this notice will be posted at <http://www.epa.gov/air/ozonepollution/actions.html#impl> under “recent actions.”

#### C. How is this notice organized?

The information presented in this preamble is organized as follows.

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- G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
- H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use
- I. National Technology Transfer and Advancement Act
- J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- K. Congressional Review Act

## IX. Statutory Authority

## V. Background

### A. What requirements for Stage II gasoline vapor recovery apply in ozone nonattainment areas?

The requirements in the 1990 CAA Amendments regarding Stage II vapor recovery are contained in Title I: Provisions for Attainment and Maintenance of National Ambient Air Quality Standards. Under CAA section 182(b)(3), Stage II gasoline vapor recovery systems are required to be used at higher throughput GDFs located in Serious, Severe, and Extreme nonattainment areas for ozone.<sup>2</sup> States were required to adopt a Stage II program into their SIPs, and the controls were to be installed according to specified deadlines following state rule adoption.<sup>3</sup> Since the early 1990s, Stage 2

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<sup>2</sup> Originally, the section 182(b)(3) Stage II requirement also applied in all Moderate ozone nonattainment areas. However, under section 202(a)(6) of the CAA, 42 U.S.C. 7521(a)(6), the requirements of section 182(b)(3) no longer apply in Moderate ozone nonattainment areas after the EPA promulgated ORVR standards on April 6, 1994, 59 FR 16262, codified at 40 CFR parts 86 (including 86.098-8), 88 and 600. Under implementation rules issued in 2002 for the 1997 8-hour ozone standard, the EPA retained the Stage II-related requirements under section 182(b)(3) as they applied for the now-revoked 1-hour ozone standard. 40 CFR 51.900(f)(5) and 40 CFR 51.916(a).

<sup>3</sup> This requirement only applies to facilities that sell more than a specified number of gallons per month and is set forth in sections 182(b)(3)(A)-(C) and 324(a)-(c). Section 182(b)(3)(B) has the following effective date requirements for implementation of Stage II after the adoption date by a state of a Stage II rule: 6 months after adoption of the state rule, for GDFs built after the enactment date (which for newly designated areas would be the designation date); 1 year after adoption date, for gas stations pumping at least 100,000 gal/month based on average monthly sales over 2-year period before adoption date; 2 years after adoption, for all others.

gasoline vapor controls have provided substantial emissions reductions and have contributed to improved air quality over time.

#### B. Stage II Vapor Recovery Systems

When a gasoline-powered automobile or other vehicle is brought into a GDF to be refueled, the empty portion of the fuel tank on the vehicle contains gasoline vapors. When liquid gasoline is pumped into the partially empty gas tank, gasoline vapors are forced out of the tank and fill pipe as the tank fills with liquid gasoline. Where air pollution control technology is not used, these vapors are emitted into the ambient air. In the atmosphere, these vapors can react with sunlight, nitrogen oxides and other volatile organic compounds to form ozone.

There are two basic technical approaches to Stage II vapor recovery: a “balance” system, and a vacuum assist system. A balance type Stage II control system has a rubber boot around the gasoline nozzle spout that fits snugly up to a vehicle’s gasoline fill pipe during refueling of the vehicle. With a balance system, when gasoline in the underground storage tank (UST) is pumped into a vehicle, a positive pressure differential is created between the vehicle tank and the UST. This pressure differential draws the gasoline vapors from the vehicle fill pipe through the rubber boot and the concentric hoses and underground piping into the UST. This is known as a balance system because gasoline vapors from the vehicle tank flow into the UST tank to balance pressures. About 30 percent of Stage II GDFs nationwide use the balance type Stage II system.

The vacuum assist system is the other primary type of Stage II system currently in operation. This type of Stage II system uses a vacuum pump on the vapor return line to help draw vapors from the vehicle fill pipe into the UST. An advantage of this type of system is that the rubber boot around the nozzle can be smaller and lighter (or not used at all) and still draw the vapors into the vapor return hose.

This makes for an easier-to-handle nozzle, which is popular with customers. About 70 percent of Stage II GDFs nationwide use the vacuum assist approach.

New Stage II equipment is normally required to achieve 95 percent control effectiveness at certification. However, studies have shown that in-use control efficiency depends on the proper installation, operation, and maintenance of the control equipment at the GDF.<sup>4</sup> Damaged, missing, or improperly operating components or systems can significantly degrade the control effectiveness of a Stage II system.

In-use effectiveness ultimately depends on the consistency of inspections, follow-up review by state agencies, and actions by operators to perform inspections and field tests and conduct maintenance in a correct and timely manner. The EPA's early guidance for Stage II discussed expected training, inspection, and testing criteria, and most states have adopted and supplemented these criteria as deemed necessary for balance and vacuum assist systems.<sup>5</sup> In some cases, states have strictly followed the EPA guidance but other states have required a lesser level of inspection and enforcement efforts. Past EPA studies have estimated Stage II in-use efficiencies of 92 percent with semi-annual inspections, 86 percent with annual inspections and 62 percent with minimal or less frequent state inspections.<sup>6</sup> The in-use effectiveness of Stage II control systems may vary from state to state, and may vary over time within any state or nonattainment area because the in-use efficiency of Stage II vapor recovery systems depends heavily on the ongoing maintenance and oversight by GDF owners/operators and the state/local agencies.

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<sup>4</sup> The Petroleum Equipment Institute has published recommended installation practices (PEI/RP300-93) and most states require inspection, testing, and evaluation before a system is commissioned for use.

<sup>5</sup> "Enforcement Guidance for Stage II Vehicle Refueling Control Programs," U.S. EPA, Office of Air and Radiation, Office of Mobile Sources, December 1991.

<sup>6</sup> "Technical Guidance – Stage II Vapor Recovery Systems for Control of Vehicle Refueling at Gasoline Dispensing Facilities Volume I: Chapters," EPA-450/3-91-022a, November 1991. This study is a composite of multiple studies.



### C. Onboard Refueling Vapor Recovery (ORVR) Systems

In addition to Stage II controls, the 1990 CAA Amendments required another method of controlling emissions from dispensing gasoline. Section 202(a)(6) of the CAA requires an onboard system of capturing vehicle-refueling emissions, commonly referred to as an ORVR system.<sup>7</sup> ORVR consists of an activated carbon canister installed on the vehicle into which vapors are routed from the vehicle fuel tank during refueling. There the vapors are captured by the activated carbon in the canister. To prevent the vapors from escaping through the fill pipe opening, the vehicle employs a seal in the fill pipe which allows liquid gasoline to enter but blocks vapor escape. In most cases, these are “liquid seals” created by the incoming liquid gasoline slightly backing near the bottom of the fill pipe. When the engine is started, the vapors are purged from the activated carbon and into the engine where they are burned as fuel.

The EPA promulgated ORVR standards on April 6, 1994 (59 FR 16262). Section 202(a)(6) of the CAA required that the EPA’s ORVR standards apply to light-duty vehicles manufactured beginning in the fourth model year after the model year in which the standards were promulgated, and that ORVR systems provide a minimum evaporative emission capture efficiency of 95 percent.

Automobile manufacturers began installing ORVR on new passenger cars in 1998 when 40 percent of new cars were required to have ORVR. The regulation required the percentage of new cars with ORVR increase to 80 percent in 1999 and 100 percent in 2000. The regulation also required that ORVR for light duty trucks and vans (<6000 pounds (lbs) gross vehicle weight rating (GVWR)) was to be phased-in during 2001 with 40 percent of such new vehicles required to have ORVR in 2001, 80 percent in 2002 and 100 percent in 2003. New heavier light-duty trucks (6001 – 8500 lbs GVWR) were

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<sup>7</sup> Unlike Stage II, which is a requirement only in ozone nonattainment areas, ORVR requirements apply to vehicles everywhere. More detail on ORVR is available at <http://www.epa.gov/otaq/orvr.htm>.

required to have 40 percent with ORVR by 2004, 80 percent by 2005 and 100 percent by 2006. New trucks up to 10,000 lbs GVWR manufactured as a complete chassis were all required to have ORVR by 2006.<sup>8</sup> Complete vehicle chassis for heavy-duty gasoline vehicles between 10,001 and 14,000 lbs GVWR (Class 3) are very similar to those between 8,501 and 10,000 lbs GVWR. For model consistency purposes, manufacturers began installing ORVR on Class 3 complete chassis in 2006 as well. So, after 2006, essentially all new gasoline-powered vehicles less than 14,000 lbs GVWR are ORVR-equipped.

ORVR does not apply to all vehicles, but those not covered by the ORVR requirement comprise a small percentage of the gasoline-powered highway vehicle fleet (approximately 1.5 percent of gasoline consumption). The EPA estimates that by the end of 2012, more than 71 percent of vehicles currently on the road will have ORVR.<sup>9</sup> This percentage will increase over time as older cars and trucks are replaced by new models. However, under the current regulatory construct, motorcycles and heavy-duty gasoline vehicles not manufactured as a complete chassis are not required to install ORVR, so it is likely that there will be some very small percentage of gasoline refueling emissions not captured by ORVR controls.

Even prior to the EPA's adoption of ORVR requirements, in 1993 EPA adopted Onboard Diagnostic (OBD) System requirements for passenger cars and light trucks, and eventually did so for heavy-duty gasoline vehicles up to 14,000 lbs GVWR.<sup>10</sup> These systems are designed to monitor the in-use performance of various vehicle emission control systems and components, including protocols for finding problems in the purge systems and large and small vapor leaks in ORVR/evaporative emission

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<sup>8</sup> The EPA promulgated ORVR standards for light duty vehicles and trucks on April 6, 1994, 59 FR 16262, codified at 40CFR parts 86 (including 86.098-8), 88 and 600.

<sup>9</sup> See EPA Memorandum "Onboard Refueling Vapor Recovery Widespread Use Assessment." A copy of this memorandum is located in the docket for this action EPA-HQ-OAR-2010-1076.

<sup>10</sup> See Federal Register at 58 FR 9468 published February 19, 1993, and subsequent amendments and the latest OBD regulations at 40 CFR part 86.1806-05 for program requirements in various years.

controls.<sup>11</sup> OBD II systems were phased in for these vehicle classes over the period from 1994-1996 for lighter vehicles and 2005-2007 for heavy-duty gasoline vehicles, so, during the same time frame that manufacturers were implementing ORVR into their vehicles, they already had implemented or were implementing OBD II systems.

In 2000, the EPA published a report addressing the effectiveness of OBD II control systems.<sup>12</sup> This study concluded that enhanced evaporative and ORVR emission control systems are durable and low emitting relative to the FTP (Federal Test Procedure) enhanced evaporative emission standards, and that OBD II evaporative emissions checks are a suitable replacement for functional evaporative emission tests in state inspection and maintenance (I/M) programs. OBD system codes are interrogated and evaluated in a 30-vehicle emission I/M program. A recent EPA review of OBD data gathered from I/M programs from five states<sup>13</sup> indicated relatively few vehicles had any evaporative system-related OBD codes that would indicate a potential problem with the vapor management system.

Based on emissions tests of over 1,100 in-use ORVR-equipped vehicles, EPA concluded that the average in-use efficiency of ORVR is 98 percent. The legal requirement for ORVR is 95 percent efficiency. Thus, the actual reported control achieved in practice is greater than the statutorily required level of control.

#### D. Compatibility Between Some Vapor Recovery Systems

Even though the per-vehicle vapor recovery efficiency of ORVR exceeds that of Stage II, Stage II vapor recovery systems have provided valuable reductions in ozone precursors and air toxics as

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<sup>11</sup> ORVR systems are basically a subset of evaporative emission systems because they share the same vapor lines, purge valves, purge lines, and activated carbon canister.

<sup>12</sup> “Effectiveness of OBD II Evaporative Emission Monitors - 30 Vehicle Study,” EPA 420-R-00-018, October 2000.

<sup>13</sup> See EPA Memorandum, “Review of Frequency of Evaporative System Related OBD Codes for Five State I/M Programs.” A copy of this memorandum is located in the docket for this action EPA-HQ-OAR-2010-1076.

ORVR has been phased into the motor vehicle fleet. In fact, overall refueling emissions from vehicle fuel tanks are minimized by having both ORVR and Stage II in place, but the incremental gain from retaining Stage II decreases relatively quickly as ORVR penetration surpasses 75 percent of dispensed gasoline. Please see Table 2 below. This occurs not only because of a decreasing amount of gasoline being dispensed to non-ORVR equipped vehicles, but also because differences in operational design characteristics between ORVR and vacuum assist Stage II systems may in some cases cause a reduction in the overall control system efficiency compared to what could have been achieved relative to the individual control efficiencies of either ORVR or Stage II emissions from the vehicle fuel tank. The problem arises because the ORVR canister captures the gasoline vapor emissions from the motor vehicle fuel tank rather than the vapors being drawn off by the vacuum assist Stage II system. This occurs because the fill pipe seal blocks the vapor from reaching the Stage II nozzle. Thus, instead of drawing vapor-laden air from the vehicle fuel tank into the underground storage tank (UST), the vacuum pump of the Stage II system draws mostly fresh air into the UST. This fresh air causes gasoline in the UST to evaporate inside the UST and creates an internal increase in UST pressure. As the proportion of ORVR vehicles increases, the amount of fresh air, void of gasoline vapors, pumped into the UST also increases. Even with pressure/vacuum valves in place this eventually leads to gasoline vapors being forced out of the UST vent pipe into the ambient air. These new UST vent-stack emissions detract from the overall recovery efficiency at the GDF. As discussed in the proposed rule, the level of these UST vent stack emissions varies based on several factors but can result in a net 1 to 10 percent decrease in overall control efficiency of vehicle fuel tank emissions at any given GDF.<sup>14</sup> The decrease in efficiency varies

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<sup>14</sup> See EPA Memorandum “Onboard Refueling Vapor Recovery Widespread Use Assessment.” A copy of this memorandum is located in the docket for this action EPA-HQ-OAR-2010-1076. The level of these UST vent stack emissions varies based on several factors; EPA estimates a 5.4 to 6.4 percentage point decrease in Stage II control efficiency in the 2011-2015 time frame at GDFs employing non-ORVR compatible vacuum assist Stage II nozzles. The decrease in efficiency varies depending on the

depending on the vacuum assist technology design (including the use of a mini-boot for the nozzle and the ratio of volume of air drawn into the UST compared to the volume of gasoline dispensed (A/L) ratio), the gasoline Reid vapor pressure, the air and gasoline temperatures, and the fraction of throughput dispensed to ORVR vehicles. There are various technologies that address these UST vent-stack emissions and can extend the utility of Stage II to further minimize the overall control of gasoline vapor emissions at the GDF. These technologies include nozzles that sense when fresh air is being drawn into the UST and stop or reduce the air flow. These ORVR-compatible nozzles are now required in California and Texas. Another solution is the addition of processors on the UST vent pipe that capture or destroy the gasoline vapor emissions from the vent pipe. A number of these systems were presented in comments on the proposed rule. While they may have merit, installing these technologies adds to the expense of the control systems.

#### E. Proposed Rule to Determine Widespread Use of ORVR

Section 202(a)(6) of the CAA provides discretionary authority to the EPA Administrator to, by rule, revise or waive the section 182(b)(3) Stage II requirement for Serious, Severe, and Extreme ozone nonattainment areas after the Administrator determines that ORVR is in widespread use throughout the motor vehicle fleet. The percentage of non-ORVR vehicles and the percentage of gasoline dispensed to those vehicles grow smaller each year as these older vehicles wear out and are replaced by new ORVR-equipped models. Given the predictable nature of this trend, the EPA proposed a date for ORVR widespread use.

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vacuum assist technology design (including the use of a mini-boot for the nozzle and the ratio of volume of air drawn into the UST compared to the volume of gasoline dispensed (A/L) ratio), the gasoline Reid vapor pressure, the air and gasoline temperatures, and the fraction of throughput dispensed to ORVR vehicles. The values will increase over time as the fraction of total gasoline dispensed to ORVR vehicles at Stage II GDFs increases.

In the Notice of Proposed Rulemaking (NPRM) (76 FR 41731, July 15, 2011), the EPA proposed that ORVR widespread use will occur at the mid-point in the 2013 calendar year, relying upon certain criteria outlined in the proposed rule. This date was also proposed as the effective date for the waiver of the CAA section 182(b)(3) Stage II requirements for Serious, Severe and Extreme ozone nonattainment areas.

The EPA used two basic approaches in determining when ORVR would be in widespread use in the motor vehicle fleet. Both approaches focused on the penetration of ORVR-equipped vehicles in the gasoline-powered highway motor vehicle fleet. The first proposed approach focused on the volume of gasoline that is dispensed into vehicles equipped with ORVR, and compared the emissions reductions achieved by ORVR alone to the reductions that can be achieved by Stage II controls alone. The second approach focused on the fraction of highway motor gasoline dispensed to ORVR-equipped vehicles.

In the proposal, the EPA included Table 1 (republished below). This work was based on outputs from EPA's MOVES 2010 motor vehicle emissions model, which showed information related to the penetration of ORVR in the national motor vehicle fleet projected to 2020. These model outputs have been updated for the final rule to be consistent with the latest public release of the model (MOVES 2010a) since that is the version of the model states would use in any future inventory assessment work related to refueling emissions control. Overall, ORVR efficiency was shown in column 5 of Table 1 and was determined by multiplying the fraction of gasoline dispensed into ORVR-equipped vehicles by ORVR's 98 percent in-use control efficiency.

Table 1 - Projected Penetration of ORVR in the National Vehicle Fleet by Year – based on MOVES 2010

1	2	3	4	5
Calendar Year	Vehicle Population Percentage	VMT Percentage	Gasoline Dispensed Percentage	ORVR Efficiency
2006	39.5%	48.7%	46.2%	45.3%

2007	45.3%	54.9%	52.5%	51.5%
2008	50.1%	60.0%	57.6%	56.4%
2009	54.3%	64.5%	62.1%	60.9%
2010	59.0%	69.3%	66.9%	65.6%
2011	63.6%	73.9%	71.5%	70.1%
2012	67.9%	78.0%	75.6%	74.1%
2013	71.7%	81.6%	79.3%	77.7%
2014	75.2%	84.6%	82.6%	80.9%
2015	78.4%	87.2%	85.3%	83.6%
2016	81.2%	89.4%	87.7%	85.9%
2017	83.6%	91.2%	89.7%	87.9%
2018	85.6%	92.7%	91.3%	89.5%
2019	87.5%	93.9%	92.7%	90.8%
2020	89.0%	94.9%	93.9%	92.0%

See EPA Memorandum “Onboard Refueling Vapor Recovery Widespread Use Assessment” in the docket (number EPA-HQ-OAR-2010-1076) addressing details on issues related to values in this table.

Note: In this table, the columns have the following meaning.

1. Calendar year that corresponds to the percentages in the row associated with the year.
2. Percentage of the gasoline-powered highway vehicle fleet that have ORVR.
3. Percentage of vehicle miles traveled (VMT) by vehicles equipped with ORVR.
4. Amount of gasoline dispensed into ORVR-equipped vehicles as a percentage of all gasoline dispensed to highway motor vehicles.
5. Percentage from the same row in column 4 multiplied by 0.98.

In the proposal, the EPA estimated that ORVR would need to achieve in-use emission reductions of about 77.4 percent to be equivalent to the amount of control Stage II alone would achieve. This estimate was based on the in-use control efficiency of Stage II systems and exemptions for Stage II for lower throughput GDFs. In the NPRM, the EPA assumed that in areas where basic Stage II systems are used the control efficiency of Stage II gasoline vapor control systems is 86 percent. The use of this value depends on the assumption that daily and annual inspections, periodic testing, and appropriate maintenance are conducted in a correct and timely manner. In addressing comments, we have stated that

this efficiency could be nearer to 60% if inspections testing and maintenance are not conducted and there is minimal enforcement.<sup>15</sup>

In the NPRM, the EPA estimated that the percentage of gasoline dispensed in an area that is covered by Stage II controls is 90 percent. Multiplying the estimated efficiency of Stage II systems (86 percent) by the estimated fraction of gasoline dispensed in nonattainment areas from Stage II-equipped gasoline pumps yielded an estimate of the area-wide control efficiency of Stage II programs of 77.4 percent ( $0.90 \times 0.86 = 0.774$  or 77.4 percent) for emissions displaced from vehicle fuel tanks.<sup>16 17</sup> Table 1 indicated this level of ORVR control efficiency is expected to be achieved during calendar year 2013.

In the second approach for estimating when ORVR is in widespread use, we also observed from Table 1 that by the end of calendar year 2012 more than 75 percent of gasoline will be dispensed into ORVR-equipped vehicles. As discussed in the NPRM, the EPA believed that this percentage of ORVR coverage ( $\geq 75$  percent) is substantial enough to inherently be viewed as “widespread” under any ordinary understanding of that term. Furthermore, in Table 1, the percentage of VMT by ORVR-equipped vehicles (column 3) and the amount of gasoline dispensed into ORVR-equipped vehicles

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<sup>15</sup> See, “Determination of Widespread Use of Onboard Refueling Vapor Recovery (ORVR) and Waiver of Stage II Vapor Recovery Requirements: Summary of Public Comments and Responses.” March 2012. Document contained in docket EPA-HQ-OAR-2010-1076.

<sup>16</sup> See section 4.4.3 (especially Figure 4-14 and Table 4-4) in “Technical Guidance - Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities, Volume I: Chapters,” EPA-450/3-91-022a, November 1991. A copy of this document is located in the docket for this action EPA-HQ-OAR-2010-1076. This is based on annual enforcement inspections and on allowable exemptions of 10,000/50,000 gallons per month as described in section 324(a) of the CAA. The EPA recognizes that these two values vary by state and that in some cases actual in-use efficiencies, prescribed exemption levels, or both may be either higher or lower.

<sup>17</sup> AP-42, The EPA’s emission factors document, identifies three sources of refueling emissions: displacement, spillage, and breathing losses. In the EPA Memorandum “Onboard Refueling Vapor Recovery Widespread Use Assessment” (available in the public docket), the EPA determined that for separate Stage II and ORVR refueling events, spillage and breathing loss emission rates are similar. Thus, this analysis focuses on differences in controlled displacement emissions. Compatibility effects related to ORVR and Stage II vacuum assist systems are addressed separately.



(column 4) reached or exceeded 75 percent between the end of year 2011 and end of 2012. The EPA believed this provided further support for establishing a widespread use date after the end of calendar year 2012. Based on the dates derived from these two basic approaches, the EPA proposed to determine that ORVR will be in widespread use by June 30, 2013, or the midpoint of calendar year 2013.

## **VI. This Action**

### A. Analytical Rationale for Final Rule

Section 202(a)(6) of the CAA provides discretionary authority to the EPA Administrator to, by rule, revise or waive the section 182(b)(3) Stage II requirement after the Administrator determines that ORVR is in widespread use throughout the motor vehicle fleet. As discussed in the NPRM, the EPA has broad discretion in how it defines widespread use and the manner in which any final determination is implemented. In our review of the public comments received on the proposal, no commenter indicated that a widespread use determination was inappropriate or took issue with the EPA's two-pronged analytical approach. We have integrated responses to many comments throughout the preamble to this final rule. A more detailed set of responses is in a document titled, "Determination of Widespread Use of Onboard Refueling Vapor Recovery (ORVR) and Waiver of Stage II Vapor Recovery, Summary of Public Comments and Responses" that can be found in the docket, EPA-HQ-OAR-2010-1076.

The analytical approaches used by the EPA to determine the widespread use date are influenced by several key input parameters that affect the estimates of the emission reduction benefits of Stage II alone versus the benefits of ORVR alone and the phase-in of ORVR-equipped vehicles. We received several comments on the assumptions and parameters used by the EPA in the NPRM, and in some cases we have updated the information used in calculations that support the final rule, as discussed in the following paragraphs.

#### 1. ORVR Parameters

- ORVR efficiency. The EPA used an in-use control efficiency of ORVR of 98 percent in the proposal. This was based on the testing of 1,160 vehicles drawn from the field. EPA has updated its analysis to include an additional 478 refueling emission test results for ORVR-equipped vehicles that were conducted in calendar years 2010 and 2011. The data set, which now includes over 1,600 vehicle tests for vehicles from model years 2000-2010 with mileages ranging from 10,000 to over 100,000, continues to support the conclusion that the 98 percent in-use efficiency values remain appropriate.<sup>18</sup>
- Modeling program inputs. The NPRM relied on EPA's MOVES 2010 model for estimating ORVR vehicle fleet penetration, VMT by ORVR vehicles, and gallons of gasoline dispensed to ORVR vehicles. Since the development of the NPRM, the EPA has publicly released MOVES 2010a. The updated model incorporates many improvements. Those relevant here include updates in ORVR vehicle sales, sales projections, scrappage, fleet mix, annual VMT, and fuel efficiency. The EPA believes that the modeling undertaken to determine the widespread use date for the final rule should employ the EPA's latest MOVES modeling program because it contains updated information that bears on the subject of this rulemaking, and because the EPA expects states to also use it in any state-specific demonstrations supporting future SIP revisions, including revisions that seek to remove Stage II programs.

## 2. Stage II Parameters

- Stage II efficiency. The EPA used an in-use control efficiency of 86 percent for Stage II in the proposal. As discussed above, Stage II control efficiency depends on inspection, testing, and maintenance by GDF owner/operators, and inspection and enforcement by state/local agencies.

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<sup>18</sup> See the EPA memorandum "Updated ORVR In-Use Efficiency." A copy of this memorandum is located in the docket for this action EPA-HQ-OAR-2010-1076.

Typical values range from 62 percent to 86 percent. The public comments referred the EPA to additional reported information directly related to in-use effectiveness of Stage II vapor recovery.<sup>19</sup> The reports indicate that for balance and vacuum-assist type Stage II systems in use in many states today, the in-use effectiveness of Stage II is typically near 70 percent.

Nonetheless, the EPA has elected to retain the use of an 86 percent efficiency value in the analyses supporting the final rule. This is because many state programs have included the maintenance and inspection provisions recommended by EPA to achieve this level of efficiency in their initial SIPs that originally incorporated Stage II controls.<sup>20</sup> Current in-use efficiency values may well be lower based on the performance of the Stage II technology itself or for other reasons related to maintenance and enforcement. We are not rejecting the additional information from commenters or the possibility that Stage II efficiency may be lower in some states or nonattainment areas. However, the EPA believes these issues are best examined in the SIP review process. If real in-use efficiency across all existing Stage II programs is, in fact, lower than 86 percent, the EPA's final analysis overestimates the length of time required for emissions reductions from ORVR alone to eclipse the reductions that can be achieved by Stage II alone.

- Stage II exemption rate. In sections 182(b)(3) and 324 of the CAA, Congress permitted exemptions from Stage II controls for GDFs of less than 10,000 gallons/month (privates) and 50,000 gallons/month (independent small business marketers). The EPA analysis indicated that these GDF throughput values exempted about 10 percent of annual throughput in any given area.

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<sup>19</sup> See "Draft Vapor Recovery Test Report," April 1999 by CARB and CAPCOA (now cleared for public use), and "Performance of Balance Vapor Recovery Systems at Gasoline Dispensing Facilities", prepared by the San Diego Air Pollution Control District, May 18, 2000. Both reports are available in the public docket.

<sup>20</sup> The EPA report, "Enforcement Guidance for Stage II Vehicle Refueling Control Programs," U.S. EPA, Office of Air and Radiation, Office of Mobile Sources, December 1991, provides basic EPA guidance on what a state SIP and accompanying regulations should include to achieve high efficiency.

Some states included more strict exemption rates, most commonly 10,000 gallons per month (3 percent of throughput) for both privates and independent small business marketers. A few other states' exemption provisions used values that fell within or outside this range.<sup>21</sup> Of the 21 states and the District of Columbia with areas classified as Serious, Severe, or Extreme for ozone and/or within the Ozone Transport Region, the plurality incorporated exemption provisions in their state regulations, which exempted about 10 percent of throughput.<sup>22</sup> Therefore, we believe it remains reasonable to use that value within this analysis.

- Compatibility factor for vacuum assist Stage II systems. The EPA discussed the compatibility factor at length in the NPRM and provided relevant materials in the docket. Several commenters asked that the EPA provide guidance on how the compatibility factor should be incorporated into any similar analysis conducted by a state for purposes of future SIP revisions involving Stage II programs. The magnitude of the compatibility factor for any given area varies depending on ORVR penetration, fraction of vacuum assist nozzles relative to balance nozzles, and excess A/L for vacuum assist nozzles. Two states have adopted measures to reduce this effect through the use of ORVR-compatible nozzles and one state prohibits vacuum assist nozzles completely. Due to these significant variables, the EPA is electing not to include the compatibility factor in the widespread use date determination analysis, but will provide the guidance requested by the commenters for use in making future SIP revisions. To the extent that compatibility emissions across all existing Stage II programs as a whole are significant, the EPA's final analysis

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<sup>21</sup> There are a few states that limit Stage II exemptions to only GDFs with less than 10,000 gpm throughput, which would exempt about three to five percent of area-wide throughput.

<sup>22</sup> See the EPA memorandum "Summary of Stage II Exemption Program Values." A copy of this memorandum is located in the docket for this action in EPA-HQ-OAR-2010-1076.

overestimates the length of time required for emissions reductions from ORVR alone to eclipse the reductions that can be achieved by Stage II alone.

#### B. Updated Analysis of Widespread Use

As discussed previously, the EPA has used two approaches for determining when ORVR is in widespread use on a nationwide basis. After reviewing our methodology and reviewing the related comments on the NPRM, we are retaining three of the four basic analytical input parameters and updating one. The in-use ORVR efficiency, the in-use Stage II efficiency, and the Stage II exemption rate parameters are the same as in the NPRM. However, we have updated the modeling program inputs as discussed previously, and the results are reflected in Table 2.

Table 2 - Projected Penetration of ORVR in the National Vehicle Fleet by Year – based on MOVES 2010(a)

1	2	3	4	5
End of Calendar Year	Vehicle Population Percentage	VMT Percentage	Gasoline Dispensed Percentage	ORVR Efficiency
2006	42.6%	51.2%	49.2%	48.2%
2007	48.4%	57.3%	55.5%	54.4%
2008	53.3%	62.3%	60.5%	59.2%
2009	57.7%	66.8%	64.8%	63.5%
2010	62.4%	71.6%	69.5%	68.1%
2011	67.1%	76.0%	73.9%	72.4%
2012	71.4%	80.0%	77.7%	76.1%
2013	75.3%	83.4%	81.0%	79.4%
2014	78.7%	86.3%	84.0%	82.3%
2015	81.8%	88.8%	86.5%	84.8%
2016	84.5%	90.9%	88.6%	86.8%
2017	86.8%	92.5%	90.3%	88.5%
2018	88.8%	93.9%	91.9%	90.0%
2019	90.5%	95.0%	93.2%	91.3%
2020	92.0%	95.9%	94.3%	92.4%

See EPA Memorandum “Onboard Refueling Vapor Recovery Widespread Use Assessment” in the docket (number EPA-HQ-OAR-2010-1076) addressing details on issues related to values in this table.

Note: In this table, the columns have the following meaning.

1. Calendar year that corresponds to the percentages in the row associated with the year.
2. Percentage of the gasoline-powered highway vehicle fleet that have ORVR.
3. Percentage of vehicle miles traveled (VMT) by vehicles equipped with ORVR.

4. Amount of gasoline dispensed into ORVR-equipped vehicles as a percentage of all gasoline dispensed to highway motor vehicles.
5. Percentage from the same row in column 4 multiplied by 0.98.

The results in Table 2 are applied in the context of the two basic analytical approaches used in the NPRM for supporting the final date associated with the EPA's widespread use determination. First, using the analysis based on equal reductions for Stage II and ORVR, the 77.4 percent in-use emission reduction efficiency for ORVR will occur in May 2013 (See column 5 of Table 2). Second, 75 percent of gasoline will be dispensed to ORVR-equipped vehicles by April 2012 (See column 4 of Table 2).

### C. Widespread Use Date

The updated analysis indicates that the two benchmarks will occur about a year apart, and that one benchmark of April 2012 has already passed. At the time of the NPRM, both of the benchmark dates for the ORVR widespread use determination were in the future, many months after the EPA's expected final action. Thus, given the basic merits of both approaches, the EPA believed it was reasonable to propose a date between the dates associated with the two analytical approaches.

The EPA's updated analysis presents a somewhat different picture. The April 2012 benchmark date has already passed, and the May 2013 benchmark date is less than 1 year away. We believe it is reasonable for the EPA Administrator to determine that ORVR is in widespread use in the motor vehicle fleet as of the date this final action is published in the Federal Register because this final rule is being promulgated within the window bounded by the two benchmark dates derived from the updated analyses.

As discussed previously in this notice and in the NPRM, the EPA has discretion in setting the widespread use date. It is evident from the public comments on the NPRM from states and members of the regulated industry, and from recent state actions, that there is a desire to curtail Stage II installations

at newly constructed GDFs, and to initiate an orderly phase-out of Stage II controls at existing GDFs.<sup>23</sup> Since one of the two analytical benchmark dates (April 2012) has passed, and we expect in most cases the second analytical benchmark date (May 2013) will have passed by the time the EPA is able to complete approvals of SIP revisions removing Stage II programs and pass any revised regulations, then in response to comments asking us to expedite the ORVR widespread use finding, the EPA Administrator is determining that ORVR is in widespread use in the motor vehicle fleet as of **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Accordingly, as of **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]** the requirement to implement a Stage II emissions control program under section 182(b)(3) of the CAA is waived.

#### D. Implementation of the Rule Provisions

In this final action, the ORVR widespread use determination and waiver of the section 182(b)(3) requirement applies to the entire country. This includes areas that are now classified as Serious or above for ozone nonattainment, as well as those that may be classified or reclassified as Serious or above in the future.

In the NPRM, we indicated that states could potentially demonstrate that ORVR was in widespread use in specific areas sooner than the general, national date. Such a provision is no longer needed because today's action provides for a nationwide determination of widespread use effective on **[INSERT DATE OF PUBLICATION IN FEDERAL REGISTER]**.

As stated in this final action and as pointed out by several commenters, the ORVR widespread use determination and section 182(b)(3) waiver determination does not obligate states to remove any

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<sup>23</sup> For example, in November 2011, New Hampshire put new regulations in place that eliminate the need for new GDFs to install Stage II, allows current GDFs with Stage II to decommission the systems, and requires all systems to be decommissioned by December 22, 2015. In May of 2011, New York issued an enforcement discretion directive which curtailed the need for new stations to install Stage II and permitted current installations to be decommissioned. These actions remain under review of EPA.

existing Stage II vapor recovery requirements. It is possible that a state would determine it beneficial to continue implementation of a Stage II program. For example, in an area where ORVR-equipped fleet penetration is considerably less than the national average, or where Stage II exemptions are significantly more restrictive than the national assumptions used in this analysis, a state may determine that it would not be appropriate to modify its program immediately, but that it would be more appropriate to do so at a later date. In assessing whether and how to phase out Stage II requirements, states are encouraged to review, and as needed revise the area-specific assumptions about taking into consideration their inspection and enforcement resource commitments as well as ORVR/vacuum-assist Stage II compatibility.

A state that chooses to remove the program must submit a SIP revision requesting EPA to approve such action and provide, as appropriate, a demonstration that the SIP revision is consistent with CAA section 110(l), and in some cases consistent with CAA section 193. The EPA will provide additional guidance on conducting assessments to support Stage II-related SIP revisions.<sup>24</sup> The EPA encourages states to review this guidance and consult with the EPA Regional Offices on developing SIP revisions seeking EPA approval for phasing out existing Stage II programs in a manner that ensures air quality protections are maintained.

Section 110(l) precludes the Administrator from approving a SIP revision if it would interfere with applicable CAA requirements (including, but not limited to, attainment and maintenance of the ozone NAAQS and achieving reasonable further progress). A state may demonstrate through analysis that removing a Stage II program in an area as of a specific date will not result in an emissions increase in the area, or that the small and ever-declining increase is offset by other simultaneous changes in the

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<sup>24</sup> “Phasing Out Stage II Gasoline Refueling Vapor Recovery Programs: Guidance on Satisfying Requirements of Clean Air Act Sections 110(l), 193, and 184(b)(2) (tentative title).” U.S. EPA Office of Air and Radiation, forthcoming.



implementation plan. However, a state may find that by removing Stage II requirements, they are reducing the overall level of emissions reductions they have previously applied toward meeting CAA rate of progress (ROP) or reasonable further progress (RFP) requirements, or demonstrating attainment. If so, the state should explain how removing Stage II controls in the area would not interfere with attaining and maintaining the ozone NAAQS in the area. In such circumstances, it is possible that additional emissions reductions from other measures may be needed to offset the removal of Stage II.

If EPA has approved a state's adoption of Stage II requirements into a SIP before November 15, 1990, section 193 would also apply. Section 193 provides that removal of an emissions control program cannot result in any emissions increase unless the increase is offset. Section 193 only applies if an area is nonattainment for the standard.

State and local agencies should also consider any transportation conformity impacts related to removing Stage II if emissions reductions from Stage II are included in a SIP-approved on-road motor vehicle emissions budget. States may need to adjust conformity budgets or the components of the budget if removing Stage II requirements would alter expected air quality benefits.

In previous memoranda, the EPA provided guidance to states on removing Stage II at refueling facilities dedicated to certain segments of the motor vehicle fleet (e.g., new automobile assembly plants, rental car facilities, E85 dispensing pumps, and corporate fleet facilities). In these specific cases where all or nearly all of the vehicles being refueled are ORVR-equipped, the EPA could conservatively conclude that widespread use of ORVR had occurred in these fleets.<sup>25</sup>

#### E. Implementation of Rule Provisions in Ozone Transport Region

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<sup>25</sup> "Removal of Stage II Vapor Recovery in Situation where Widespread Use of Onboard Refueling Vapor Recovery is Demonstrated," from Stephen D. Page and Margo Tsirigotis Oge, EPA, December 12, 2006.

States and the District of Columbia in the OTR in the northeastern U.S. are also subject to a separate Stage II-related requirement. Under section 184(b)(2) of the CAA (42 U.S.C. § 7511c(b)(2)), all areas in the OTR, both attainment and nonattainment areas, must implement control measures capable of achieving emissions reductions comparable to those achievable through Stage II controls. The CAA does not contain specific provisions giving authority to the EPA Administrator to waive this independent requirement. The section 184(b)(2) requirement does not impose Stage II per se, but rather is a requirement that OTR states achieve an amount of emissions reductions comparable to the amount that Stage II would achieve. Moreover, section 202(a)(6), in allowing for a waiver of the section 182(b)(3) Stage II requirement for nonattainment areas, does not refer to the independent section 184(b)(2) requirements. Therefore, the section 184(b)(2) Stage II-related requirement for the OTR will continue to remain in place even after the ORVR widespread use determination and section 182(b)(3) waiver effective date.

In the mid-1990s, the EPA issued guidance on estimating what levels of emissions reductions would be “comparable” to those reductions achieved by Stage II.<sup>26</sup> In response, most OTR states simply adopted Stage II programs rather than identify other measures that got the same degree of emissions reductions. Given the continued penetration of ORVR-equipped vehicles into the overall vehicle fleet, Stage II-comparable emissions are significantly less than in the past, and continue to decline. Accordingly, the EPA is issuing updated guidance on determining “comparable measures.” States in the OTR should refer to that guidance if preparing a SIP revision to remove Stage II programs in areas of

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<sup>26</sup> "Stage II Comparability Study for the Northeast Ozone Transport Region," (EPA-452/R-94-011; January 1995).

the OTR.<sup>27</sup>

Commenters on the NPRM urged the EPA to revise its previous interpretation of section 184(b)(2) to permit ORVR to be recognized as a Stage II comparable emission reduction measure. This issue is not within the scope of this rulemaking, and EPA is not taking final agency action implementing section 184(b)(2) or an interpretation thereof. However, for informational purposes, we point out that simply treating the ORVR requirements under section 202(a)(6) as a comparable measure that an OTR SIP must additionally contain would arguably render the 184(b)(2) requirement a nullity, which could be an impermissible statutory interpretation. If commenters wish to further address this issue, we ask that they raise their concerns in any future SIP actions under section 184(b)(2) regarding OTR states that may affect them. In addition, we note that the expected level of emissions reductions that Stage II programs can obtain has changed significantly in the past 15 years with ORVR-equipped vehicles phasing in at the rate of 3-4 percent of the fleet each calendar year. Therefore, the EPA is issuing updated guidance on estimating the emissions reductions needed to be comparable to those achievable through Stage II controls. Theoretically, comparable measures could in some areas mean no additional control beyond ORVR is required if Stage II is achieving no additional emission reduction benefit in the area, or has reached a point of providing only a declining *de minimis* benefit.

#### F. Comments on Other Waiver Implementation Issues

Numerous commenters on the NPRM urged the EPA to adopt provisions in the final rule that would exempt new gasoline dispensing facilities with construction occurring between the final rule publication and the effective Stage II waiver date from installing Stage II equipment. The timing issue is

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<sup>27</sup> “Phasing Out Stage II Gasoline Refueling Vapor Recovery Programs: Guidance on Satisfying Requirements of Clean Air Act Sections 110(l), 193, and 184(b)(2) (tentative title).” U.S. EPA Office of Air and Radiation, forthcoming.

now largely moot since widespread use is deemed to have occurred on the effective date of this action. However, under the CAA, states adopt state-specific or area-specific rules, which are then submitted to the EPA for approval into the SIP. These rules are independently enforceable under state law, and also become federally enforceable when the EPA approves them into the SIP. The EPA cannot unilaterally change legally-adopted state statutes or rules or otherwise revise an approved SIP that was not erroneously approved. The EPA's only authority to establish requirements that would apply in lieu of approved SIPs is its authority under CAA section 110(c) to promulgate a Federal Implementation Plan (FIP). To trigger FIP authority, the EPA must first determine that a state has failed to submit a required SIP or that the state's SIP must be disapproved. The circumstances of this ORVR widespread use finding and waiver of the section 182(b)(3) Stage II requirement to do not present either of those situations. According to requirements established by the CAA that are applicable here, states will need to develop and submit SIP revisions to the EPA in order to change or eliminate SIP-approved state rules that set forth the compliance dates for newly constructed GDFs.

Commenters also urged EPA to simply allow states to eliminate all active Stage II programs from certain nonattainment areas after the widespread use date, without requiring SIP revisions from states. While the EPA has discretion to determine the widespread use date, the EPA cannot simply nullify states' rules that are binding and enforceable under state law. In order to change the federal enforceability of SIPs, states must go through the SIP revision process, and the EPA can approve the SIP revision only if the provisions of section 110(l) and any other applicable requirements, such as the requirements of section 193 and the comparable measures requirement for OTR states, are satisfied. Today's final rule takes no action in implementing CAA sections 110(l), 193, or 184(b)(2), and any future final actions regarding "comparable measures" SIPs will be fact-specific in response to individual state submissions. Also, subsequent to the effective waiver date of the section 182(b)(3) Stage II

requirements, areas currently implementing the EPA-approved Stage II programs in their SIPs as a result of obligations under the 1-hour or 1997 8-hour ozone NAAQS, would be required to continue implementing these programs until the EPA approves a SIP revision adopted under state law removing the requirement from the state's ozone implementation plan.

## **VII. Estimated Cost**

As part of the NPRM, the EPA conducted an initial assessment of the costs and savings to gasoline dispensing facility owners related to this proposed action. The report titled, "Draft Regulatory Support Document, Decommissioning Stage II Vapor Recovery, Financial Benefits and Costs," is available in the public docket for this action. The report examines the initial costs and savings to facility owners incurred in the decommissioning of Stage II vapor recovery systems, as well as changes in recurring costs associated with above ground hardware maintenance, operations, and administrative tasks. The EPA received no substantive comment on the draft report, other than a concern that the savings identified therein may not come to pass as quickly as envisioned in the draft report if the EPA does not provide updated guidance on comparable measures for the OTR states. We intend to address this concern by issuing separate guidance for the states.<sup>28</sup> EPA will post this action at the following web site address: <http://www.epa.gov/glo/actions.html>.

As part of the re-analysis following the NPRM, the EPA reviewed the input values used for the proposal draft. Most input values were confirmed as reasonable and representative but it was concluded that two of the values should be updated. These include: (1) the pre-tax price of gasoline used in the foregone vapor recovery savings calculation, which increased from \$2.30 in 2010 to \$3.04 in 2011 (average price per gallon), and (2) the number of Stage II facilities potentially affected by SIP revisions

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<sup>28</sup> "Phasing Out Stage II Gasoline Refueling Vapor Recovery Programs: Guidance on Satisfying Requirements of Clean Air Act Sections 110(l), 193, and 184(b)(2) (tentative title)." U.S. EPA Office of Air and Radiation, forthcoming.

removing Stage II requirements in non-California Serious, Severe and Extreme ozone nonattainment areas which increased from 26,900 to 30,600 in 19 states and the District of Columbia. As discussed in our final regulatory support document, the EPA estimates recurring cost savings of about \$3,000 per year for a typical gasoline dispensing facility, and an annual nationwide savings of up to \$91 million if Stage II is phased out of the approximately 30,600 dispensing facilities outside of California that are required to have Stage II vapor recovery systems under section 182(b)(3) of the CAA.<sup>29</sup> This analysis assumes that Stage II is removed from GDFs over a three year time frame in an equal number each year. What actually occurs will depend on actions by the individual states. If the states submit and EPA approves SIP revisions to remove Stage II systems from these GDFs, the EPA projects savings of about \$10.2 million in the first year, \$40.5 million in the second year, and \$70.9 million in the third year. Long term savings are projected to be about \$91 million per year, compared to the current use of Stage II systems in these areas.

## **VIII. Statutory and Executive Order Reviews**

### **A. Executive Orders 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review**

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a “significant regulatory action” because it raises novel legal or policy issues arising out of legal mandates. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

### **B. Paperwork Reduction Act**

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<sup>29</sup> See “Final Regulatory Support Document, Decommissioning Stage II Vapor Recovery, Financial Benefits and Costs,” available in public docket, EPA-HQ-OAR-2010-1076.

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. Burden is defined at 5 CFR 1320.3(b). It does not contain any recordkeeping or reporting requirements.

#### C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this action on small entities, small entity is defined as: (1) a small business as defined in the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this action on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This rule will not impose any new requirements on small entities. Rather, it provides criteria for reducing existing regulatory requirements on gasoline dispensing facilities, some of which may qualify as small businesses.

#### D. Unfunded Mandates Reform Act

This action contains no federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for state, local, or tribal governments or the private sector. The action imposes no enforceable duty on any state, local or tribal governments, or

the private sector. Therefore, this action is not subject to the requirements of sections 202 and 205 of the UMRA.

This action is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action addresses the removal of a requirement regarding gasoline vapor recovery equipment, but does not impose any obligations to remove these programs.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This action does not impose any new mandates on state or local governments. Thus, Executive Order 13132 does not apply to this rule.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It will not have substantial direct effects on tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this rule.

G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. This action is not subject to



Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a “significant energy action” as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. It does not impose additional costs on gasoline distribution, but rather promises to lower operating and maintenance costs for gasoline dispensing facilities by facilitating removal of redundant gasoline refueling vapor controls.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, 12(d), (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rulemaking does not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and

permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

The EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not directly affect the level of protection provided to human health or the environment under the EPA's NAAQS for ozone. This action proposes to waive the requirement for states to adopt largely redundant Stage II programs, based on a determination of widespread use of ORVR in the motor vehicle fleet.

#### K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a

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“major rule” as defined by 5 U.S.C. 804(2). This rule will be effective upon publication in the Federal Register.

#### **IX. Statutory Authority**

The statutory authority for this action is provided by the CAA, as amended (42 U.S.C. 7401, et seq.); relevant provisions of the CAA include, but are not limited to sections 182(b)(3), 202(a)(6), 301(a)(1), and 307(b), and 307(d)(42 U.S.C. 7511a(b)(3), 7521(a)(6), 7601(a)(1), 7607(b), and 7607(d)).

List of Subjects in 40 CFR Part 51

Environmental protection, Administrative practice and procedure, Air pollution control, Ozone, Particulate matter, Volatile organic compounds.

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Dated:

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Lisa P. Jackson,  
Administrator.

For reasons set forth in the preamble, part 51 of chapter I of title 40 of the Code of Federal Regulations is amended as follows:

Part 51-REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS.

1. The authority citation for part 51 continues to read as follows:

Authority: **23 U.S.C. 101; 42 U.S.C. 7401-7671q**

**Subpart 6 – [Amended] to read as follows:**

2. Section 51.126 is added.

**§ 51.126 Determination of widespread use of ORVR and waiver of CAA section 182(b)(3) Stage II gasoline vapor recovery requirements**

(a) Pursuant to section 202(a)(6) of the Clean Air Act, the Administrator has determined that, effective **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, onboard refueling vapor recovery (ORVR) systems are in widespread use in the motor vehicle fleet within the United States.

(b) Effective **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, the Administrator waives the requirement of Clean Air Act section 182(b)(3) for Stage II vapor recovery systems in ozone nonattainment areas regardless of classification. States must submit and receive EPA approval of a revision to their approved State Implementation Plans before removing Stage II requirements that are contained therein.